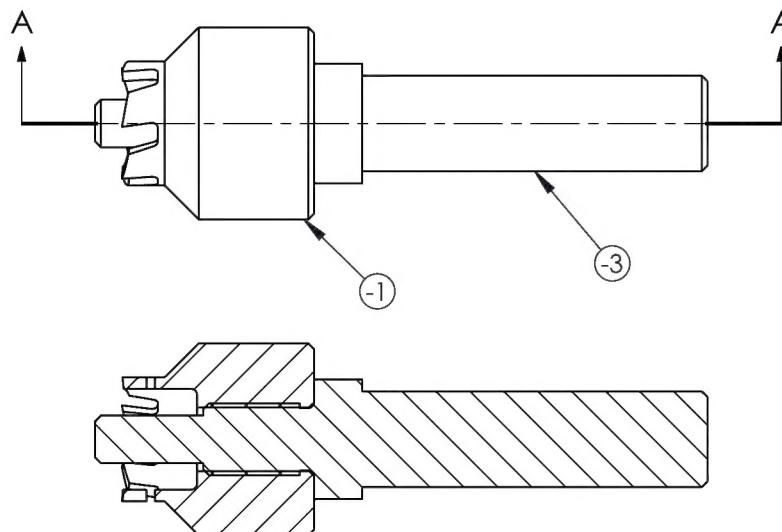


This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		CH'D ARBOR THREAD LENGTH FROM .625, ALL GDT'S FROM .001, AND ADDED ENGRAVE P/N.	12/27/07	WP	DW
2		CH'D TO A CHART FORMAT TO ACCOMMODATE MUTIPLE CUTTERS.	2/5/08	WP	DW
3		WIDENED CUTTER TOOTH FROM .045 TO .060, CH'D 4101-7 FROM 6 TO EIGHT TEETH.	4/28/08	WP	DW
4		CH'S ALL TOOL No.'S FROM KSC TO RBSC, ADDED RBSC4101-6 AND RBSC4103-6. CH'D -3 C-BORE DEPTH FROM .438 TO VARIABLE C: A2 THREAD DEPTH FROM 1.125 TO .50 +C. -5 ADDED C-BORE DEPTH WAS MISSING AND ADDED FLANGE END TO KEEP -5 OUT OF -1 CUTTER'S THREADS. ALSO CREATED Pg. 5 AND REMOVED -7 FROM Pg. 4 TO Pg. 5. CH'D -7 FROM A SOCKET HEAD CAP SCREW TO A SOCKET HEAD SHOULDER BOLT. ALSO ADDED ØATO BE MACHINED FOR CLEARANCE OF -5 GUIDE.	10/12/09	WP	DW
5		-5 ADDED COLUMN F & G IN TABLE.	8/29/11	RJC	SE
6	15-0030	ADDED BEARINGS MS14101-3, -5, -8, -9, -10, -12, -14, -16, MS14103-3, -4, -5, -7, -7A, -8, -9, -10, -12, -14, -16 . -1 ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS D, E, F, MATERIAL AND BEARING O.D., ADDED COLUMN G AND # OF TEETH COLUMNS -3 ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS BEARING #, ARBOR TYPE, ØA1, ØA2, ØB C-BORE, C, AND MATERIAL. ADDED COLUMN ØA, ØB AND C THREAD COLUMNS. DELETED -5, -7, AND ARBOR TYPE II.	2/12/2015	RJC	JAG

BEARING #	TOOL #
MS14101-3	RBSC4101-3
MS14101-4	RBSC4101-4
MS14101-5	RBSC4101-5
MS14101-6	RBSC4101-6
MS14101-7	RBSC4101-7
MS14101-8	RBSC4101-8
MS14101-9	RBSC4101-9
MS14101-10	RBSC4101-10
MS14101-12	RBSC4101-12
MS14101-14	RBSC4101-14
MS14101-16	RBSC4101-16
MS14103-3	RBSC4103-3
MS14103-4	RBSC4103-4
MS14103-5	RBSC4103-5
MS14103-6	RBSC4103-6
MS14103-7	RBSC4103-7
MS14103-8	RBSC4103-8
MS14103-9	RBSC4103-9
MS14103-10	RBSC4103-10
MS14103-12	RBSC4103-12
MS14103-14	RBSC4103-14
MS14103-16	RBSC4103-16

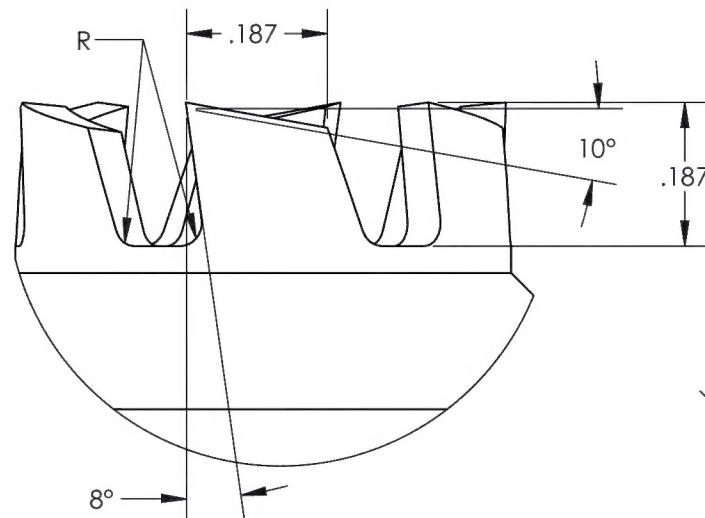
ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	CUTTER	0-1 DRILL ROD	SEE CHART	2
			-3	1	ARBOR	4140 Q & T	SEE CHART	3



DART AEROSPACE		
TITLE	DRILL PRESS BEARING CUTTER FOR MS14101 & MS14103	
DWG NO.	SEE TABLE	
MAT'L	DRAWN BY: GILBERT APPROVED <i>D. Weil</i>	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
.XXX ± .005 FRACTIONS ± 1/8		
.XX ± .01 ANGLES ± 5°		
.X ± .1		
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R		
2. DIMENSIONAL LIMITS APPLY AFTER PLATING		
USED ON MODEL 212-310-701-103		
SCALE	1:1	DATE 5/21/2013
SHEET 1 OF 3		

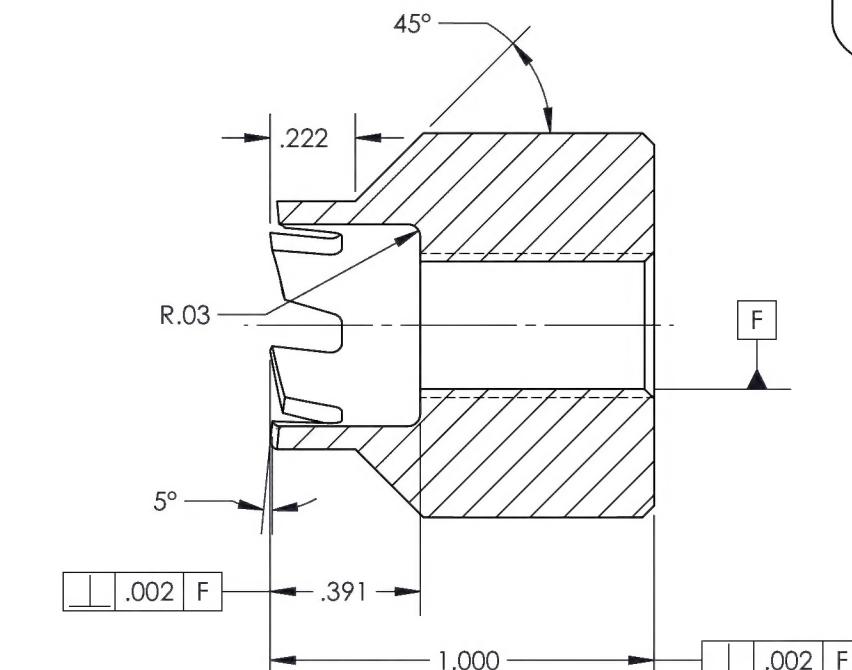
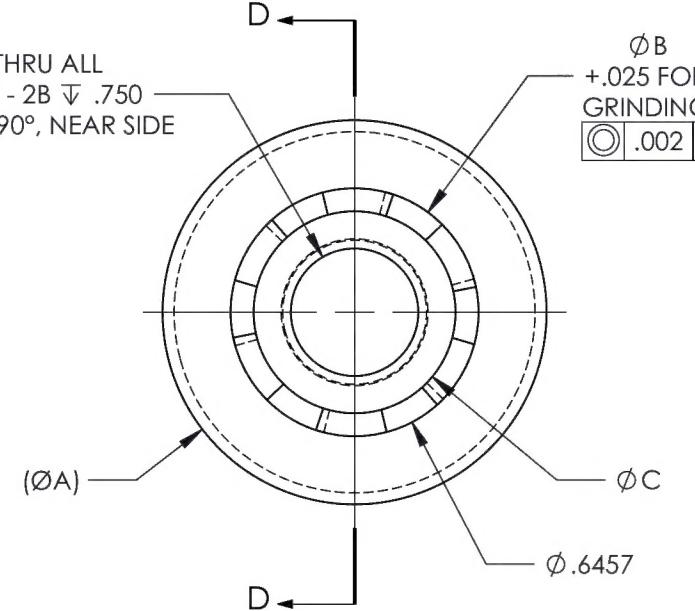
This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
6	15-0030	-1 ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS D, E, F, MATERIAL AND BEARING O.D. ADDED COLUMN G AND # OF TEETH COLUMNS.	2/12/2015	RJC	JAG

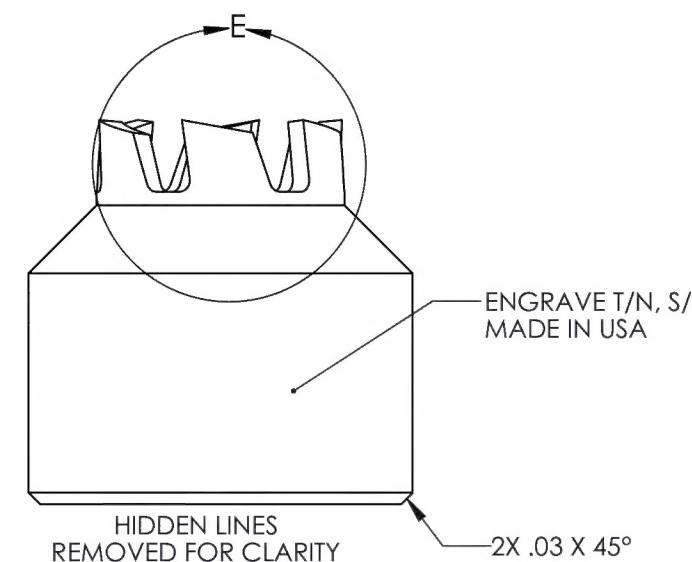


DETAIL E
SCALE 4 : 1
TYP. TOOTH
EQUALLY SPACED

TOOL #	(ØA)	ØB +.0000 -.0020	ØC +.0000 -.0050	# OF TEETH	G THREAD
RBSC4101-3	(Ø1.000)	Ø.5520	Ø.4320	6	3/8-24
RBSC4101-4	(Ø1.000)	Ø.6457	Ø.5257	6	3/8-24
RBSC4101-5	(Ø1.000)	Ø.7395	Ø.6195	6	3/8-24
RBSC4101-6	(Ø1.000)	Ø.8020	Ø.6820	8	1/2-20
RBSC4101-7	(Ø1.000)	Ø.8957	Ø.7757	8	1/2-20
RBSC4101-8	(Ø1.125)	Ø.9895	Ø.8695	8	5/8-18
RBSC4101-9	(Ø1.375)	Ø1.0832	Ø.9632	10	5/8-18
RBSC4101-10	(Ø1.375)	Ø1.1770	Ø1.0570	10	3/4-16
RBSC4101-12	(Ø1.625)	Ø1.4270	Ø1.3070	12	7/8-14
RBSC4101-14	(Ø1.750)	Ø1.5520	Ø1.4320	14	1-12
RBSC4101-16	(Ø2.000)	Ø1.7395	Ø1.6195	16	1-1/8-12
RBSC4103-3	(Ø1.000)	Ø.6145	Ø.4945	6	3/8-24
RBSC4103-4	(Ø1.000)	Ø.6145	Ø.4945	6	3/8-24
RBSC4103-5	(Ø1.000)	Ø.6770	Ø.5570	6	3/8-24
RBSC4103-6	(Ø1.000)	Ø.8020	Ø.6820	8	1/2-20
RBSC4103-7	(Ø1.125)	Ø.9270	Ø.8070	8	1/2-20
RBSC4103-7A	(Ø1.125)	Ø.8957	Ø.7751	8	1/2-20
RBSC4103-8	(Ø1.125)	Ø.9895	Ø.8695	8	5/8-18
RBSC4103-9	(Ø1.250)	Ø1.1145	Ø.9945	10	5/8-18
RBSC4103-10	(Ø1.375)	Ø1.1770	Ø1.0570	10	3/4-16
RBSC4103-12	(Ø1.500)	Ø1.3645	Ø1.2445	12	7/8-14
RBSC4103-14	(Ø1.750)	Ø1.6145	Ø1.4945	14	1-12
RBSC4103-16	(Ø2.250)	Ø2.1145	Ø1.9945	18	1-1/8-12



SECTION D-D



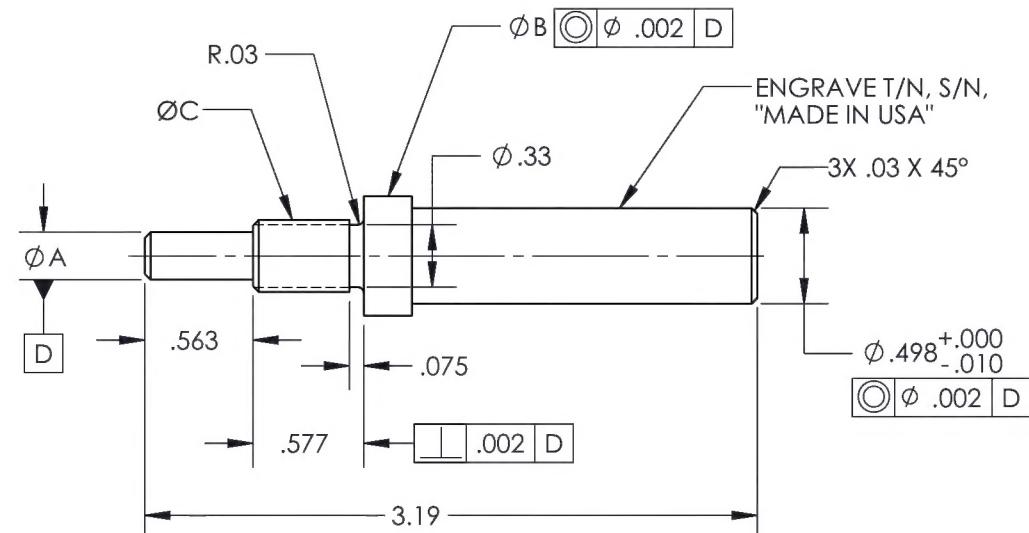
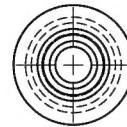
(-1)
CUTTER

DART	
AEROSPACE	
TITLE DRILL PRESS BEARING CUTTER	
DWG NO.	SEE TABLE -1
REV	6
MATL 0-1 DRILL ROD	DRAWN BY: GILBERT
UNLESS OTHERWISE SPECIFIED	APPROVED <i>D. Weil</i>
DIMENSIONS ARE IN INCHES	
.XXX ± .005	FRACTIONS ± 1/8
.XX ± .01	ANGLES ± .5°
.X ± .1	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	HEAT TREAT HRC 55-60
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	FINISH BLACK OXIDE
	SPEC
	USED ON MODEL
	212-310-701-103
SCALE 2:1	DATE 5/21/2013
	SHEET 2 OF 3

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
4		CH'D -3 C-BORE DEPTH FROM .438 TO VARIABLE C; A2 THREAD DEPTH FROM 1.125 TO .50 +C.	10/12/09	WP	DW
6	15-0030	-3 ADDED ALL NEW TOOL NUMBERS AND UPDATED TABLE. DELETED TABLE COLUMNS BEARING #, ARBOR TYPE, ØA1, ØA2, ØB C-BORE, C AND MATERIAL. ADDED COLUMN ØA, ØB AND C THREAD COLUMNS.	2/12/2015	RJC	JAG

TOOL #	ØA +.000 -.002	ØB +.000 -.010	C THREAD
RBSC4101-3	Ø.188	Ø.498	3/8-24
RBSC4101-4	Ø.248	Ø.498	3/8-24
RBSC4101-5	Ø.311	Ø.498	3/8-24
RBSC4101-6	Ø.373	Ø.750	1/2-20
RBSC4101-7	Ø.436	Ø.750	1/2-20
RBSC4101-8	Ø.498	Ø.875	5/8-18
RBSC4101-9	Ø.561	Ø.875	5/8-18
RBSC4101-10	Ø.623	Ø1.000	3/4-16
RBSC4101-12	Ø.748	Ø1.125	7/8-14
RBSC4101-14	Ø.873	Ø1.250	1-12
RBSC4101-16	Ø.998	Ø1.375	1-1/8-12
RBSC4103-3	Ø.188	Ø.498	3/8-24
RBSC4103-4	Ø.248	Ø.498	3/8-24
RBSC4103-5	Ø.311	Ø.498	3/8-24
RBSC4103-6	Ø.373	Ø.750	1/2-20
RBSC4103-7	Ø.436	Ø.750	1/2-20
RBSC4103-7A	Ø.436	Ø.750	1/2-20
RBSC4103-8	Ø.498	Ø.875	5/8-18
RBSC4103-9	Ø.561	Ø.875	5/8-18
RBSC4103-10	Ø.623	Ø1.000	3/4-16
RBSC4103-12	Ø.748	Ø1.125	7/8-14
RBSC4103-14	Ø.873	Ø1.250	1-12
RBSC4103-16	Ø.998	Ø1.375	1-1/8-12



(-3)
ARBOR

DART AEROSPACE	
TITLE DRILL PRESS BEARING CUTTER FOR MS14101 & MS14103	
DWG NO.	SEE TABLE-3
MAT'L 4140 Q & T	DRAWN BY: GILBERT APPROVED <i>D Weil</i>
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	HEAT TREAT FINISH BLACK OXIDE
.XXX ± .005	FRACTIONS ± 1/8
.XX ± .01	ANGLES ± 5°
X ± .1	SPEC
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	212-310-701-103
SCALE 1:1	DATE 5/21/2013
	SHEET 3 OF 3